



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,595	04/05/2006	Hiroshi Doi	MAT-8834US	4973
52473	7590	01/06/2009	EXAMINER	
RATNERPRESTIA			BATISTA, MARCOS	
P.O. BOX 980				
VALLEY FORGE, PA 19482			ART UNIT	PAPER NUMBER
			2617	
			MAIL DATE	DELIVERY MODE
			01/06/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,595	DOI ET AL.	
	Examiner	Art Unit	
	MARCOS BATISTA	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 30 October 2008.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-8 and 10-23 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 1-8, 10, 11 and 13-23 is/are allowed.

6) Claim(s) 12 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

Art Unit- Location

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/30/2008 has been entered.

Response to Argument

3. Applicant's arguments with respect to claim 12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

4. Claim 22 is objected to because of the following informalities: Claim 22 depends on cancelled claim 9. For the purpose of examination, claim 22 is treated as being dependent on claim 8. Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (US 7103371 B1), hereafter “Liu,” in view of Mano (US 6778586 B1), hereafter “Mano,” further in view of Sugaya (US 20040053621 A1), hereafter “Sugaya.”

Consider claim 12, Lui a step in which a first radio communication device sends communication time reservation request information addressed to a second radio communication device, in which a time slot when data will be transmitted to the second radio communication device is written; (see abstract, Fig 7A, col. 10 lines 66-67, col. 11 lines 1-34), a step in which the second radio communication device sends communication time reservation response information, in which notice of reception of the communication time reservation request information is added to the communication time reservation request information (see Fig 7A, col. 12 lines 9-22); a step in which a third radio communication device which has received the communication time reservation request information from the first radio communication device or the communication time reservation response information from the second radio communication device or both stores the time slot written in the communication time reservation request information or the communication time reservation response information as a transmission prohibited time slot (see col. 11 lines 43-59); a step in which the first radio communication device transmits data in the time slot of which the second radio communication device has been notified (see Fig 13, col. 13 lines 9-27); a step in which when the second radio communication device receives the request, it transmits the transmission prohibited time slots or a transmission-permitted time slot to the first radio communication device (see Fig 13, col. 11 lines 9-41); a step in which the

first radio communication device selects a time slot which satisfies the conditions prescribed by the transmission prohibited time slots or the transmission permitted time slot received from the second radio communication device and notifies the second radio communication device of the time slot as communication time reservation request information (see col. 10 lines 49-65, col. 11 lines 43-59).

Lui, however, does not particular refer to a step in which the third radio communication device decides upon a time slot in which its own transmission and reception are possible, based on the stored transmission prohibited time slots.

Mano, in analogous art, teaches a step in which the third radio communication device decides upon a time slot in which its own transmission and reception are possible, based on the stored transmission prohibited time slots (see col. 4 lines 6-11).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Liu and have it include a step in which the third radio communication device decides upon a time slot in which its own transmission and reception are possible, based on the stored transmission prohibited time slots, as taught by Mano. The motivation would have been in order to prevent beacon collisions as different communication apparatuses try to communicate one another in the same network (see col. 4 lines 6-11).

Lui as modified by Mano discloses claim 12 above, but Lui alone or in combination does not particular refer to a step in which the second radio communication device detects collisions while receiving data; a step in which the second radio communication device gives notice of the collision to the first radio communication

device when the number of collisions is more than or equal to the prescribed number of times; a step in which when the first radio communication device receives the notification of collision, it requests the second radio communication device to give the time slots in which transmission is prohibited or a time slot in which transmission is permitted; the number of detected collisions is less than the prescribed number, the second radio communication device stops giving notice of its transmission prohibited time slots or its transmission-permitted time slot.

Sugaya, in analogous art, teaches a step in which the second radio communication device detects collisions while receiving data (see Fig 10, [0043]); a step in which the second radio communication device gives notice of the collision to the first radio communication device when the number of collisions is more than or equal to the prescribed number of times (see [0049]); a step in which when the first radio communication device receives the notification of collision, it requests the second radio communication device to give the time slots in which transmission is prohibited or a time slot in which transmission is permitted (see [0044]); the number of detected collisions is less than the prescribed number, the second radio communication device stops giving notice of its transmission prohibited time slots or its transmission-permitted time slot (see Fig 10, [0040]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Liu as modified by Mano and have it include a step in which the second radio communication device detects collisions while receiving data; a step in which the second radio communication device gives notice of

the collision to the first radio communication device when the number of collisions is more than or equal to the prescribed number of times; a step in which when the first radio communication device receives the notification of collision, it requests the second radio communication device to give the time slots in which transmission is prohibited or a time slot in which transmission is permitted; the number of detected collisions is less than the prescribed number, the second radio communication device stops giving notice of its transmission prohibited time slots or its transmission-permitted time slot, as taught by Sugaya. The motivation would have been in order to efficiently perform data transmission (see Fig 10, [0049]).

Allowable Subject Matter

9. Claims 1-8, 10, 11 and 13-23 are allowed.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Marcos Batista, whose telephone number is (571) 270-5209. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Pérez-Gutiérrez can be reached at (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

/VINCENT P. HARPER/
Supervisory Patent Examiner, Art Unit 2617
Marcos Batista
/M. B./
12/31/2008